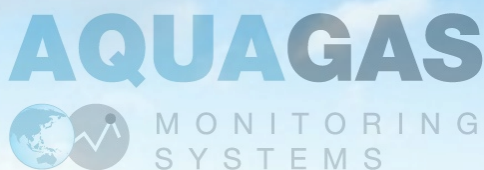


INDUSTRIAL AND SURFACE WATER MONITORING



TOPAZ Online Water Quality Analyser

Description

The **TOPAZ** analyser is designed for automatic and continuous monitoring of a **several parameters** amongst a large range of chemical compounds in all type of waters. Thanks to its concept using a combination of analytical methods (**Colorimetry, Titrimetry and Potentiometry or selected absorption**) the **TOPAZ** allows accurate, reliable and flexible water quality strict monitoring sampled from up to **six different streams**.

Applications

Control of industrial process: Raw waste industrial water, water Treatment Plant (urban and industrial), residual concentration of active chlorine, Chlorine production and electro-chlorination process, activated or recirculation sludge tank, effluents and influents continuous monitoring, compliance with environmental regulations and guidelines.

Drinking and Surface water: Alert stations and environmental monitoring.

Oil & Gas: refineries, oil exploration.

Multiparameter and Multistream



Key functions for enhanced monitoring

- AMMONIUM, FREE AND/OR TOTAL CHLORINE, HYDRAZINE, MORPHINE, PHENOL, SULPHATES
- COLOUR, SILICA, PHOSPHATES (ORTHOPHOSPHATES), HARDNESS
- ALUMINIUM, CHROMIUM VI, COPPER, IRON, NICKEL, LEAD, ZINC

- TITRIMETRY
- TH, ALKALINITY
- POTENTIOMETRY
- AMMONIUM, CHLORIDES, CYANIDES, FLUORIDES AND MORE
- SPECIFIC METHOD CAN BE ADAPTED FOR PROCESS AND BRINES MONITORING
- PERACETIC ACID, VFA, CA MG, NH₄ AND MORE

RANGES AND OTHER PARAMETERS: PLEASE CONSULT

Fully automatic online multiparameter analysis

Modules & Features

User interface smart & intuitive interface enabling all the analyser controls and status reports via Touchscreen

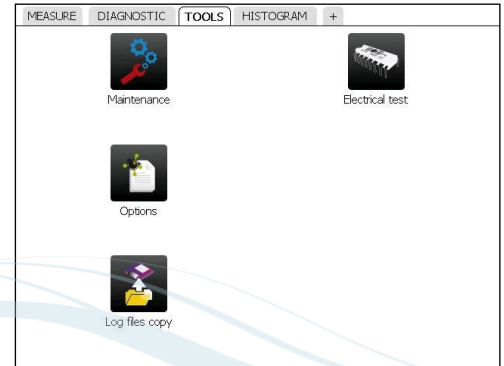
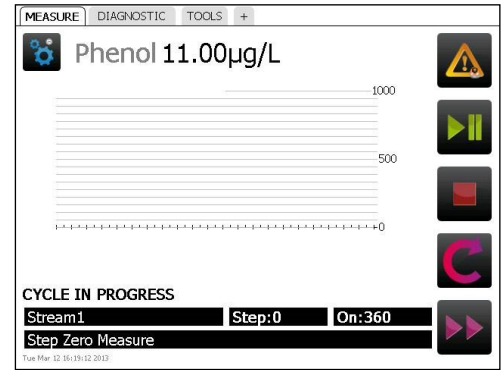
Measurement emission & reception directly on the PCB by gathering all programs driving the whole measurement process for each parameter. Increased accuracy and response time resulting from the association of the measuring and its fibre optics system

JBus/ModBus module retrieval data / steering

Supervision management of data and JBus/ModBus « slave » protocol, execution of cycles & measurement PCB control, data storage

Low Operating cost Minimum reagents' consumption

• **Multi-stream** 1 to 6 channels multiplexer



Technical Specifications

CONSTRUCTION & ENVIRONMENT

Dimensions	Wall cabinet stainless steel 316L: 610 x 825 x 400 mm (W x H x D)
Weight & Material	20 kg approx. - Stainless steel 316L
Environment & Protection	Installation in safe and sheltered area, away from corrosive atmosphere. IP55.
Ambient T°	5 to 40°C (depend method)
Relative humidity	10 to 80%

ELECTRICAL UTILITIES

Power supply	110 - 240 VAC 50 / 60 Hz
Consumption	Typical 150 VA - Maximum 300 VA

ANALYSIS

Parameters	Refer to list on reverse page / Consult
Range	Depend on parameter / Consult
Method	Continuous, on line measurement Colorimetry, titrimetry, potentiometry or absorption Selection based on parameter and/or range
Reagents	Depend on parameter and method
Number of streams	1 to 6 on option (above, please consult)
Multi-parameter	Single or multi-parameter analyser (consult)
Cycle duration	15 min on average
Accuracy	± 1 to 2% end of range (colo, titri, pot.)
Repeatability	± 1 to 2% end of range (colo, titri), ± 3 to 5% (pot.)

CONNECTIVITY, ALARMS & COMMUNICATION

User interface	Colour LCD display, 5.7", 160 x 230 mm, touch-screen Windows interface
Data storage and retrieval	Data storage in analyser memory Transfer via USB port
Input / Output & Communication	4 - 20 mA, dry contacts—JBus/Modbus RS232 On option : support converter RS485
Alarms	Thresholds per stream (HI-LO), sample & analyser failure
Remote control	JBus/ModBus protocol or dry contact: end of cycle stop,

SAMPLING

Preparation	Filtration if needed / Dilution, depending on application
Sample inlet	Flow : min 30 l/h - optimum 46 l/h (4 l/h with water saver) Pressure : 0.1 to 3 bar maximum Temperature : 5 to 45°C
Hydraulic connections	Sample : Inlet 1/4" BSP F / Outlet soft tubing D INT 9 Waste : soft tubing D INT 12
Cell volume	25 ml for potentiometry, otherwise 8 to 10 ml

OPERATION

Zero	Automatic at end of each measurement cycle
Semi-automatic calibration	Required upon renewal of reagents Otherwise : depends on method
Cleaning	Mechanical wiper on option, if needed



PROCESS CONTROL

Manufacturing industries

Drinking water

ONLINE Water Quality Monitoring Solutions for upstream and downstream purification processes.

Ensure the optimal quality all along the manufacturing and distribution network.

Process water

Integrated solutions for real-time water quality measurements suited to industrial processes.

ENVIRONMENT

Environmental protection and pollution control.

Surface water

REALTIME Monitoring stations or mobile laboratories, for the protection of surface water, spring water, rivers and groundwater.

Sea water

Prevention of sea water by hydrocarbon wastes: Oil tankers, Oil Rigs, Refinery wastes.



SERES Environnement (FRANCE) is one of the major actors in the field of online analysis dedicated to **Water Quality Monitoring** in the industry and the environment. Outstanding experience, attentiveness, innovative and effective solutions are the strengths of SERES while meeting everyday challenges with Environment Organizations, Water production & treatment, Oil & Gas, Petrochemical industry, Refineries, Power stations, Paper mills, Metal, food and other industries, Oil rigs, Tankers, Etc. ...



Environmental Compliance & Online Process Analysis



AquaGas Pty Ltd is supporting the global industrial community with high performance **Environmental & Process Monitoring Systems** (Continuous Emissions Monitoring Systems, Air Quality Monitoring Systems, Online process analysers, **Water Quality Monitoring Systems**) specifically designed and built to meet your application requirements.

With extensive expertise and diverse technical skills acquired around the globe, AquaGas Pty Ltd designs, installs, and supports innovative technical solutions, which respond to the requirements of environmental regulations in terms of pollution monitoring and environmental impact assessment. AquaGas Pty Ltd Systems and Services are available in **Australia, New-Zealand and New Caledonia.**





VALIDATED OVER THE YEARS
IN A LARGE FIELD OF
APPLICATION

Solvay

Rhodia

Ineos

FPG Taiwan

Ciba Geigy

Sanofi

Aventis

PPG

Arkema

Asahi Glass

De Nora

Total

Samsung

Coca Cola

Lafarge

Mitsubishi

Petro Bras

Alstom...



APPLICATIONS

Drinking water

Quality control at all stages :
treatment, storage, distribution

Surface water

Study and design of surface
water monitoring stations

Waste water

Monitoring of industrial
or urban waste water

Process water

Quality control of
process water

Oil & Water

Oil in Water Detection &
Water in Oil storage tanks

PARAMETERS

TOTAL CHLORINE
FREE CHLORINE
MORPHOLINE
PHOSPHATES
AMMONIA
HYDRAZINE
COLOUR
PHENOLS
SILICA...

HARDNESS

THT
TA
TAC ...

CHROMIUM VI
MANGANESE
ALUMINIUM
COPPER
NICKEL
IRON
LEAD
ZINC...

CHLORIDES
CYANIDES
FLUORIDES
SULFIDES
ARSENIC
SULFATES ...

CERTIFICATIONS



L C I E